

REMARKS

Claims 1 to 44 are in the case, of which claims 6-12, 14-36, 38, 40 and 42 have been withdrawn from consideration.

Claims 1-5, 37, 39 and 41 have been amended and new claims 43 and 44 have been added in view of the Office Action and to better define what the Applicants consider their invention, as fully supported by an enabling disclosure.

Additional support for the feature of a "controlled" void volume in independent claims 1 and 13 can be found, for example, at paragraph [0027]. Additional support for the feature the majority of pores having a diameter within "at most" $\pm 50\%$ of the chosen pore diameter can be found, for example, at paragraphs [0051] – [0098].

Claims 43 and 44 are added to recite a feature commensurate with the application as filed (see paragraph [0060] and claim 13 as filed respectively).

No new matter has been added.

Reconsideration in view of the following remarks and entry of the foregoing amendments are respectfully requested.

OBJECTIONS

The Examiner has rejected claims 37, 39 and 41 under 37 CFR 1.75(c).

Applicant amends the claims to place the claims in proper dependent form.

In view of the above and foregoing, it is respectfully requested that the Examiner withdraw her objections to claims 37, 39 and 41 under 37 CFR 1.75(c).

REJECTIONS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claims 37, 39 and 41 have been rejected under 35 U.S.C. § 112, second paragraph as being indefinite.

Applicants respectfully traverse the rejection as follows.

Applicants amend claims 37, 39 and 41 to recite a method utilizing the article of claims 1 to 5, as allowed, for example in *Ex parte Porter*, 25 USPQ2d 1144 (Bd. Pat. App. & Inter. 1992), where the Board held that a claim which clearly recited the step of "utilizing" was

not indefinite under 35 U.S.C. 112, second paragraph.

In view of the above and foregoing, it is respectfully requested that the Examiner withdraw her rejection of claims 37, 39 and 41 under 35 U.S.C. § 112, second paragraph.

REJECTIONS UNDER 35 U.S.C. § 101

Claims 37, 39 and 41 have been rejected under 35 U.S.C. § 101.

Applicants respectfully traverse the rejection as follows.

Applicants amend claims 37, 39 and 41 to recite a method, which is patentable subject matter under 35 U.S.C. § 101.

In view of the above and foregoing, it is respectfully requested that the Examiner withdraw her rejection of claims 37, 39 and 41 under 35 U.S.C. § 101.

DOUBLE PATENTING

Claims 1, 13, 37, 39 and 41 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 19, 26, 28, 30 of co-pending Application No. 12/093712.

This rejection is provisional since the conflicting claims have not in fact been patented.

Applicants duly noted this provisional rejection but does not wish to address it at this time. Applicants recognize that this objection may continue to be made by the Examiner in this application, as long as she is of the opinion that there are conflicting claims in the two applications that are the subject of this rejection, subject to the following: "If this "provisional" non statutory obviousness-type double patenting (ODP) rejection is the only rejection remaining in the earlier filed of the two pending applications, while the latter is rejectable on other grounds, the Examiner should withdraw that rejection and permit the earlier filed application to issue as a patent without a terminal disclaimer" (MPEP 804 I.B.1).

As indicated previously, the present application is the earlier filed of the two applications that are the subject of the present rejection. Applicants therefore do not wish to address this issue in the present response since the provisional rejection may be withdrawn.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-4, 13, 37 and 41 have been rejected as being anticipated by **Washburn et al.** Claims 1-5, 13, 37 and 41 have been rejected as being anticipated by **5,856,367 ('367)**. Claims 1-5, 13, 37, 39 and 41 have been rejected as being anticipated by **6,281,257 ('257)**. Claims 1-4, 13, 37, 39 and 41 have been rejected as being anticipated by **2002/0005600 ('600)**.

Applicants respectfully traverse the rejection as follows.

Applicants amend independent claims 1 and 13 to more precisely recite what they believe the invention is, as supported in the application as filed. Additional support for the feature of a "controlled" void volume in independent claims 1 and 13 can be found, for example, at paragraph [0027]. Additional support for the feature "the majority of pores having a diameter within "at most" $\pm 50\%$ of the chosen pore diameter" can be found, for example, at paragraphs [0051] – [0098].

The standard for anticipation is one of fairly strict identity: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), and "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Amended independent claims 1 and 13 recite a polymeric article, comprising:

- a) an essentially continuous porosity;
- b) a controlled void volume from 10 to 90%;
- c) with pore diameters showing a unimodal distribution set to a predefined unimodal peak location corresponding to a chosen pore diameter; and
- d) with a majority of pores having a diameter within at most $\pm 50\%$ of the chosen pore diameter.

Washburn *et al.*

The polymeric article taught by **Washburn *et al.*** is shown in a scanning electron micrograph (SEM) of the surface thereof in Figure 5a (page 26) pointed out by the Examiner. Figure 5a shows pores near the surface. As people in the art will appreciate, and as explained in the present application as filed at paragraph [0088], SEM only allows a two-dimensional analysis, and therefore cannot be used to assess a three-dimensional structure. As an illustrative example, a section of multiple branches of a tree appear as islands. The tree is clearly continuous, but the image displays disconnected islands. Hence, it is not possible to use such an image to distinguish between dispersed islands, dispersed fibers or levels of continuity. In no way can such a micrograph be used to assess "a three-dimensional network of interconnected domains", i.e. continuity as defined in the present application (see paragraphs [0058] and [0059]). Moreover, **Washburn *et al.*** do not provide quantitative measurements of continuity as determined by solvent extraction/gravimetry for example, as used in the present application (see paragraph [0080] as filed). Therefore, it is respectfully submitted that **Washburn *et al.* fail to disclose an essentially continuous porosity as described and recited in the present application (feature a).**

Washburn *et al.* teach using blends of PCL and PEO, with volume fractions of PCL in a range between 25% and 60%, and then selectively dissolving of the PEO to yield a porous material with pores replacing the dissolved PEO. Therefore, void volume fractions in a range between 75% and 40%, corresponding to the dissolved volume fractions of PEO, are expected (see top column 2, page 24). **Washburn *et al.*** does not provide quantitative measurements of the effective void volume fractions, and it is therefore respectfully submitted that **Washburn *et al.* fail to teach an article having a controlled void volume from 10 to 90%, as described and recited in the present application (feature b).**

As far as pore size is concerned, **Washburn *et al.*** mention a maximum ("above 100 microns" -see Abstract), and ranges from 20 to 150 microns (page 25, column 1) and from 10 to 100 microns (page 26, column 1). **Washburn *et al.*** do not collect measurements over a

statistical population, as described in the present application, which could evidence a unimodal distribution as defined and claimed in the application (see for example paragraphs [0065] and [0066]) and illustrated for example in Figures 13 to 16 as filed (see paragraphs [0094]-[0098]). Therefore, it is respectfully submitted that Washburn et al. fail to teach pore diameters showing a unimodal distribution set to a predefined unimodal peak location corresponding to a chosen pore diameter and a majority of pores having a diameter within at most $\pm 50\%$ of the chosen pore diameter as described and recited in the present application (features c) and d)).

From the foregoing, as **Washburn et al.** fail to describe, either expressly or inherently, each and every element, namely features a)-d) as listed above and recited in independent claims 1 and 13, it is respectfully submitted that the Examiner withdraw her rejection of independent claims 1 and 13 and claims dependent thereon.

5,856,367 ('367)

The polymeric article described in '367 in example 6, characterized by a SEM analysis of a cross section thereof, reveals pores between 5 and 50 microns before solvent/plasticiser and compression treatment, and a denser morphology after solvent/plasticiser and compression treatment (see column 13, line 54- column 14, line 4). '367 does not describe an article with continuity as defined in the present application, "as a three-dimensional network of interconnected domains [...] as determined by solvent extraction/gravimetry" (see paragraphs [0058], [0059] and [0080] as filed). Therefore, it is respectfully submitted that '367 fails to disclose an essentially continuous porosity as described and recited in the present application (feature a)).

'367 describes an article with a pore size in ranges between 0.5 and 50 microns and between 300 and 500 microns (see column 8 lines 34-48). However, '367 does not teach a unimodal distribution as defined and claimed in the application (see for example paragraphs [0065] and [0066]) and illustrated for example in Figures 13 to 16 as filed. Therefore, it is respectfully submitted that '367 fails to teach pore diameters showing a unimodal distribution set to a predefined unimodal peak location corresponding to a chosen pore diameter and a majority of pores having a diameter within at most $\pm 50\%$ of the chosen pore diameter as

described and recited in the present application (features c) and d)).

As '367 fails to describe, either expressly or inherently, each and every element as set forth in independent claims 1 and 13, it is respectfully submitted that the Examiner withdraw her rejection of independent claims 1 and 13 and claims dependent thereon.

6,281,257 ('257)

The polymeric article taught by '257 is shown in an SEM analysis. As people in the art will appreciate, and as explained in the application as filed (see paragraph [0081]), SEM analysis cannot be used to assess continuity as defined in the present application, "as a three-dimensional network of interconnected domains [...] as determined by solvent extraction/gravimetry" (see paragraphs [0058], [0059] and [0080] as filed). Therefore, it is respectfully submitted that '257 fails to disclose an essentially continuous porosity as described and recited in the present application (feature a)).

'257 teaches void volumes of at least 80% (see column 2, lines 21-32 and examples in section 4 starting in column 13). It is respectfully submitted that '257 fails to teach an article having a controlled void volume from 10 to 90%, as described and recited in the present application (feature b)).

'257 mentions pore sizes of several microns up to about 300 microns (see column 7, lines 54-55), 50-200 microns (column 8, lines 19-20), up to 600 microns (see column 10, line 14). It is respectfully submitted that '257 fails to teach pore diameters showing a unimodal distribution set to a predefined unimodal peak location corresponding to a chosen pore diameter and a majority of pores having a diameter within at most $\pm 50\%$ of the chosen pore diameter as described and recited in the present application (features c) and d)).

As '257 fails to describe, either expressly or inherently, each and every feature as recited in independent claims 1 and 13, it is respectfully submitted that the Examiner withdraw her rejection of independent claims 1 and 13 and claims dependent thereon.

2002/0005600 ('600)

The polymeric article taught by '600 is shown in an SEM analysis. As people in the art will appreciate, and as explained in the application as filed (see paragraph [0081]), SEM

analysis cannot be used to assess continuity as defined in the present application, "as a three-dimensional network of interconnected domains [...] as determined by solvent extraction/gravimetry" (see paragraphs [0058], [0059] and [0080] as filed). It is respectfully submitted that '600 fails to disclose an essentially continuous porosity as described and recited in the present application (feature a)).

'600 describes void volumes of at least 80%. It is respectfully submitted that '600 fails to teach an article having a controlled void volume from 10 to 90%, as described and recited in the present application (feature b)).

'600 describes an article with a pore size of 100-500 microns. It is respectfully submitted that '600 fails to teach pore diameters showing a unimodal distribution set to a predefined unimodal peak location corresponding to a chosen pore diameter and a majority of pores having a diameter within at most $\pm 50\%$ of the chosen pore diameter as described and recited in the present application (features c) and d)).

As '600 fails to describe, either expressly or inherently, each feature as recited in independent claims 1 and 13, it is respectfully submitted that the Examiner withdraw her rejection of independent claims 1 and 13 and claims dependent thereon.

The rejections of the original claims are believed to have been overcome by the present remarks and amendments. From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such an action is earnestly solicited.